REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT NO./TASK NO.			JOB ORDER NUMBER	APPROP. FY
	NAS5-	TASK NO.	AMENDMENT		
QSS Group, Inc.	99124	393		442-458-70-23-89	2000

TASK TITLE: (NTE 80 characters; include Project name)

FSC's Flight System and Servicing Management and Integration

APPROVALS: (Type or print name and sign)

ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR)	DATE	ORG CODE	MAIL CODE	PHONE
James W. Barcus	9/25/00	442	442	301-286-1458

BRANCH HEAD	DATE	CODE		PHONE
Frank Cepollina			442	301-286-1266

CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)	DATE	CODE		PHONE
for Robert S. Lebair, Jr. Deborah a. Clark	9/26/00		560	301-286-6382

FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE?	CONTRACTING OFFICER'S QUALITY REP.	DESIGNATED FAM:
'(IF YES, NEED CODE 303 CONCURRENCE NEXT BLOCK) (X) NO ( ) YES	Larry Moore	

The contractor shall identify and explain the reason for any deviations, exceptions, or conditional assumptions taken with respect to this Task Order or to any of the technical requirements of the Task Order Statement of Work and related specifications. The contractor shall complete and submit the required Reps and Certs.	(To be completed by Contracting Officer) **C.O. Requested Quote on:** *Date:*

Contractor will develop specification or statement of work under this task for a future pro·	(X) NO	( ) YES	
Flight hardware will be shipped to GSFC for testing prior to final de	( ) NO	( ) YES	(X) N/A
Government Furnished Property/Faciliti	(X) NO	( ) YES -- SEE LIST OF GFP (offsite only) / FACILITIES (onsite only)	
Onsite Performance:	( ) NO	(X) YES	If yes: ( ) TOTAL (X) PARTIAL
			If partial, indicate onsite work in SOW by asterisk (*)
Surveillance Plan Attached:	(X) NO	( ) YES	

Highlighted Contract Clauses: *(to be completed by Contracting Officer)*

> Per Clause H.14, Task Ordering Procedure, subparagraph (f), the effective date of this task order shall be 10/1/00.

INCENTIVE FEE STRUCTURE   (check one)

(See Contract NAS5-99124, Attachment K, Incentive Fee Plan)

	No. 1	X No. 2	No. 3	No. 4	No. 5
Cost	10%	50%	25%	25%	%
Schedule	15%	25%	25%	50%	%
Technical	75%	25%	50%	25%	%

(To be completed by Contracting Officer)

The target cost of this task order is $ 409,623 .

The target fee of this task order is $ 26,625 .

The total target cost and target fee of this task order as contemplated by the Incentive Fee clause of this contract is $ 436,248 .

The maximum fee is $ 38,914 .

The minimum fee is $0.

AUTHORIZED SIGNATURE:

THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS".

SIGNATURE OF CONTRACTING OFFICER	DATE 10/25/00	ELIZABETH J. AUSTIN CONTRACTING OFFICER
		TYPED NAME OF CONTRACTING OFFICER

CONTRACTOR'S ACCEPTANCE:

AUTHORIZED SIGNATURE	DATE

GSFC FORM 703-1845   12/98 (OLDER VERSIONS ARE OBSOLETE)

DISTRIBUTION: CONTRACTOR, CONTRACTING OFFICER, COTR, CODE 303, RESOURCES ANALYST, ASSISTANT TECHNICAL REPRESENTATIVE

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Applicable paragraphs from contract Statement of Work:

STATEMENT OF WORK: (Continue on blank paper if additional space is required)

See Page 3.

PERFORMANCE SPECIFICATIONS:

See Page 4.

APPLICABLE DOCUMENTS:

None.

TASK END DATE: 9/30/01

MILESTONES/DELIVERABLES AND DATES:

See Page 5.

PERFORMANCE STANDARDS:
        Schedule: On-time delivery/completion of the milestones/deliverables.
        Technical: ATR's acceptance of the above.

FINAL DELIVERY DESTINATION (NAME, BLDG, ROOM):
J. Barcus, building 29, room 200

GSFC FORM 703-1845a

TECHNICAL WORK MAY NOT BEGIN PRIOR TO CO APPROVAL

NASA/GODDARD SPACE FLIGHT CENTER

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Task #: **393**

This is a follow-on to Task 117 under this contract; uninterrupted transition is required.

STATEMENT OF WORK:

1. Systems Management and Integration

- Development and management of EVA Support Equipment List (ESEL) while under GSFC control. ESEL is the manifest for all hardware delivered by HST for flight.

- Provide critical systems level interfacing between diverse areas of the HST Flight Systems and Servicing Project to ensure the timely transfer of critical, key information between the diverse EVA, SSE, Observatory Development Office, Science Instrument Office and the Servicing Mission Management. Participate in Preliminary and Critical Design Reviews either as presenters or key Review Team members. Ensure that information flows between the key functions and up to program management, ensuring the timely resolution of issues.

- Provide engineering services for the development of the Servicing Mission Safety Data Package (SDP) including reviewing and rewriting the descriptive section of the SDP; reviewing and rewriting Hazard Reports for the Phase 2 and Phase 3 SDPs; meeting with the JSC Payload Safety Review Panel and various working groups to present and defend the SDP; and assisting in the development of Non-Compliance Reports (NCRs) required to support deviations for the safety requirements.

- Provide engineering evaluation of latch condition and need for refurbishment including; physical inspection of latches on flight instruments, Scientific Instrument Protective Enclosures (SIPEs), and tooling and fixtures for wear and damage; reviewing recommendations made by latch contractors for repair and refurbishment of latches and give independent recommendations on required effort; traveling to the latch contractor's facility and review work in process, testing of latches, and participation in Program Reviews; maintaining the current latch historical records and status (which are contained in computer data base) and issuing the bi-monthly OTA Latch Records Report; updating the data base whenever latches are removed, installed, shipped, or received; providing real time information on any of the approximately 40 sets of latches currently in use; and assisting the Project in updating the latch schedules for the monthly schedule status report.

- Provide systems engineering services for the High Fidelity Mechanical Simulator (HFMS) maintenance, configuration, and operation with regard to OTA latches, OTA ORUs, and axial and radial instruments including inspecting and observing the HFMS and keeping track of planned activity and simulation needs; including comparing the HFMS equipment with close out photos and drawings of the Hubble Space Telescope (HST) and advise of any need for modifications as fidelity needs change; tracking changes made during maintenance missions and insure that these changes are incorporated into the HFMS; and acting as advisors and mentors to other engineers and technicians who are operating the HFMS.

- Provide engineering services for space support equipment (SSE) such as carriers and equipment protective enclosures relative to interfacing with OTA ORUs and latches including review of carrier and SIPE designs and procedures; observing the installation of ORUs and Scientific Instruments, with particular attention to latch operation; serving as advisor and mentor to engineers and technicians designing and operating the carriers and SIPEs, and providing documentation on latch interface and operation.

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- On an as-required basis, provide engineering guidance, services, development, and technical review of all HST-related NASA Shuttle Flight documentation and unique HST documentation including: development and review of the Payload Integration Plan (PIP) and all its Annexes (Annex 1, Annex 2 part 1, Annex 2 part 2, Annex 4, Annex 5, ICA, Annex 7, Annex 8, OMRSD, Annex 11); all relevant Flight Data Files (Deploy checklist, EVA Checklist, Flight Plan, Malfunction Procedures, Orbiter Operations Checklist, Photo-TV Checklist); participate and provide substantial input to the Flight Rule development and the development of the HST Servicing Mission Timeline and its associated Command Plan.

- Provide systems engineering for the planning, coordination, and management of EVA activities involving HST flight and ground systems hardware including: coordination of all aspects of the EVA Configuration Control Board (EVA-CCB) activities; providing engineering inputs to the development of various Crew Aids and Tools (CATS); and responsibility for the continuing development and devising the proper usage of a thermal glove box at GSFC.

- Provide engineering guidance for incoming inspection, parts suppliers, and failure analysis laboratory personnel to assure that Code 442 reliability goals are met.

- Provide project and selected contractor designers with expert guidance in the disciplines relative to connectors, relays, and wire and cable.

- Provide systems engineering services for hardware development including computer simulations and assisting in control algorithm development.

PERFORMANCE SPECIFICATIONS:

1. System Management and Integration

The System Engineering Services shall be provided as specified in the SOW with the schedules and major milestones listed in the attachment. Performance for these milestones will be assessed on the quality and correctness of engineering solutions to HST Operations issues.

- Provide systems engineering services for the development of the Extra Vehicular Activity (EVA) contingency document.

- Provide systems engineering and integration and test services for the EVA Crew orientations and Crew Fams. Participate in the Integration and Test Planning sessions, review procedures, write work orders, conduct hardware briefings, and perform tool-to-tool, tool-to-interface and interface-to-interface fit checks over all HST hardware.

- Provide systems engineering services to the HST Neutral Buoyancy Laboratory (NBL) activities, and end-to-end and development tests during HST ORU change out activities including assisting the EVA working group in capturing and recording Astronaut hardware evaluations; developing procedures and contingency plans for hardware change outs; and providing SCUBA diving support to underwater EVA-suited subjects during test runs as well as performing set-up/breakdown of mockup hardware during daily activities.

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The current schedule for the remaining NBL activities is listed below.
HST SM3A NBL Simulation Schedule

-- NBL SIM 00.5   October 2000
-- NBL SIM 00.6   December 2000
-- NBL SIM 01.1   February 2001
-- NBL SIM 01.2   April 2001
-- NBL SIM 01.3   June 2001
-- NBL SIM 01.4   August 2001

- Provide systems engineering services for the SM3 internal GSFC simulation and the Joint Integrated Simulations (JISs). Contractor's is required to address System Engineering activities and issues raised during the simulations to include manning consoles, addressing both Normal and Anomalous Operations, providing recommendations to the EVA Manager for anomaly resolution, and performing Event tracking. The current schedule for the Internal GSFC Simulations and the JISs is listed at http://edocs1.hst.nasa.gov/doc/publish/sm3fldr/document/simsched.pdf.

- Reports and Documents: Technical performance will be based on thoroughness and completeness of written reports. Acceptable performance is that the ATR is satisfied that the material reflects the proper level of technical expertise and meets the objectives of the activity.

- Technical Progress Report: Acceptable performance is that the ATR is satisfied that he is being kept informed of the status of work performed and of issues requiring his attention. Report to include: (1) summary of monthly progress; (2) plans for next month; (3) problems; (4) issues; and (5) resolution of problems/issues.

- Management: Performance will be measured against the following metrics: (1) accomplishment of objectives; (2) clear, incremental progress; (3) responsiveness to issues; (4) efficient and appropriate staffing; and (5) coordination with and good working relationship with ATR and other related contractor efforts, if applicable.

MILESTONE/DELIVERABLES AND DATES:

1. Update SM3B Latch Record Report   Bi-Monthly through September; last day of month
2. Provide EVA-CCB Minutes   Monthly through September; last day of month
3. Provide ESEL Updates   Monthly through delivery at CDR
4. Technical Progress Report   Monthly; 15th day of month